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SURFACE ROUGHNESS SCALING IN SPUTTER-DEPOSITED BERYLLIUM AND BERYLLIUM-BORON FILMS, E. C. Honea, G. W. Collins, R. L. McEachern and R. J. Wallace, Lawrence Livermore National Laboratories, Livermore, CA

Surface roughness of sputter-deposited beryllium and beryllium-boron films was measured using Atomic Force Microscopy (AFM). We compare measurements of the rms surface roughness and surface roughness correlation length vs film thickness to theories of self-affine scaling behavior. We also discuss the dependence of substrate temperature, deposition rate and impurity levels on roughness and film thickness scaling.

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